

Appln. No. 09/418,628
Amdt. dated: March 12, 2004
Reply to Final Office Action dated October 23, 2003

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- C1
1. (currently amended) A method for dynamically allocating signal processing resources in a wireless multichannel broadband base station (BBS) for a cellular communications network, said method comprising the steps of:
determining a number of pooled available channel processors ~~(CP) resources~~ which are unused in said BBS, said BBS supporting a plurality of cells, each of said available channel processors ~~CP resources~~ capable of processing any of a plurality of traffic channels contained on any frequency channel assigned to said BBS;
in response to notification of a call originating from or to a subscriber in any of said plurality of cells, determining if said number of available channel processors ~~CP resources~~ of said BBS is at least one;
selecting any of said available channel processors ~~CP resources~~ for processing of said call; and
assigning said call to said available channel processor ~~CP resource~~ which has been selected.
 2. (currently amended) The method according to claim 1 further comprising the step of decrementing the number of available channel processors ~~CP resources~~ by one after said assigning step.
 3. (currently amended) The method according to claim 1 further comprising the step of rejecting said call if all channel processors ~~CP resources~~ of said BBS are in use.

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4. (currently amended) The method according to claim 3 further comprising the step of incrementing a count of rejected calls each time a call is rejected for lack of sufficient available channel processors ~~CP-resources~~.

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5. (currently amended) The method according to claim 1 wherein said number of available channel processors ~~CP-resources~~ is are determined by counting the total number of channel processors ~~CP-resources~~ assigned to said BBS, and decrementing said total number by at least one of, a total number of active subscriber calls in a BBS and the number of channel processors ~~CP-resources~~ assigned for handling control channel traffic in said BBS.

6. (currently amended) The method according to claim 1 further comprising the step of incrementing said number of available channel processors ~~CP-resources~~ in said cell when said call is terminated.

7. (currently amended) The method according to claim 1 further comprising the steps of:

handing over said call from a first cell of said BBS to a target cell of said BBS;
and

continuing to process said call on said available channel processor ~~CP-resource~~ which has been selected and assigned prior to said step of handing over said call to said target cell.

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8. (currently amended) A resource management system for dynamically allocating signal ~~processing resources~~ processors in a wireless multichannel broadband base station (BBS) for a cellular communications network, comprising:

means for determining a number of available pooled channel processors ~~(CP) resources~~ which are unused in said BBS, said BBS supporting a plurality of cells, each of said available channel processors ~~CP resources~~ capable of processing any of a plurality of traffic channels contained on any frequency channel assigned to said BBS;

means responsive to notification of a call originating from or to a subscriber in any of said plurality of cells for determining if said number of available channel processors ~~CP resources~~ is at least one;

21 means for selecting any of said available channel processors ~~CP resources~~ for processing of said call; and

means for assigning said call to said available channel processor ~~CP resource~~ which has been selected.

9. (currently amended) The system according to claim 8 further comprising means for decrementing the number of available channel processors ~~CP resources~~ by one after said assigning step.

10. (currently amended) The system according to claim 8 further comprising means for rejecting said call if all channel processors ~~CP resources~~ of said BBS are in use.

11. (currently amended) The system according to claim 10 further comprising means for incrementing a count of rejected calls each time a call is rejected for lack of sufficient available channel processors ~~CP resources~~.

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12. (currently amended) The system according to claim 8 wherein said means for determining a number of available channel processors ~~CP-resources~~ which are unused in said BBS further includes means for counting the total number of channel processors ~~CP-resources~~ assigned to said BBS, and decrementing said total number by at least one of, a total number of active subscriber calls in said BBS and the number of channel processors ~~CP-resources~~ assigned for handling control channel traffic in said BBS.

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13. (currently amended) The system according to claim 8 further comprising means for incrementing said number of available channel processors ~~CP-resources~~ in said cell when said call is terminated.

14. (currently amended) The system according to claim 8 further comprising:
means for handing over said call from a first cell of said BBS to a target cell of said BBS; and
means for continuing to process said call on said available channel processor ~~CP resource~~ as previously selected, after handing over said call to said target cell.

15. (previously presented) The method of claim 1, wherein said BBS is a sectorized BBS, said sectorized BBS supporting a plurality of sectors.

16. (previously presented) The system of claim 8, wherein said BBS is a sectorized BBS, said sectorized BBS supporting a plurality of sectors.

17. (previously presented) The system of claim 16, wherein said BBS comprises a plurality of broadband transceivers.

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18. (currently amended) A method for dynamically allocating signal processing ~~resources~~ processors in a wireless multichannel broadband base station (BBS) for a cellular communications network, said method comprising the steps of:

allocating to a transceiver assigned to a cell a first plurality of channel processors ~~(CP)-resources~~ for processing traffic channels contained on a frequency channel;

in response to notification of a call originating from or to a subscriber in said cell, determining if there is at least one of said first plurality of channel processors ~~CP-resources~~ that is available for processing said call;

21 assigning said call to any one of said first plurality of channel processors ~~CP-resources~~ that is available.

19. (currently amended) The method according to claim 18 further comprising the step of assigning at least a second plurality of channel processors ~~CP-resources~~ to said transceiver responsive to said determining step if there is not an available one of said plurality of channel processors ~~CP-resources~~ among said first plurality of channel processors ~~CP-resources~~.

20. (currently amended) The method according to claim 18 further comprising the step of rejecting said call if all of said channel processors ~~CP-resources~~ assigned to said transceiver are in use and there are no further channel processors ~~CP-resources~~ available to be allocated to said transceiver.

21. (currently amended) The method according to claim 18 further comprising the step of incrementing a number of available channel processors ~~CP-resources~~ in said cell when said call is terminated.

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22. (currently amended) The method according to claim 18 further comprising the step of decrementing a number of available channel processors ~~CP-resources~~ in said cell when said call is assigned to one of said channel processors ~~CP-resources~~.

23. (currently amended) A resource management system for dynamically allocating signal processing resources in a wireless multichannel broadband base station (BBS) for a cellular communications network, comprising:

21 means for allocating to a transceiver assigned to a cell a first plurality of channel processors ~~(CP)-resources~~, each of said channel processors ~~CP-resources~~ capable of processing traffic channels contained on a frequency channel assigned to said transceiver;

means responsive to a notification of a call originating from or to a subscriber in said cell, for determining if there is an available one of said first plurality of channel processors ~~CP-resources~~ that is available for processing said call;

means for assigning said call to said available one of said first plurality of channel processors ~~CP-resources~~.